AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (previously presented) A device for positioning and controlling rail vehicles (4) comprising:

fixed stations (1) comprising a first signal transmitter and receiver (2); and

a central control station (3) to which are connected the fixed stations (1) and controlling a transport zone,

wherein,

each rail vehicle (4) comprises second signal transmitter and receiver (6) containing a specific identifier of a transmitter and at least one message,

the signals transmitted by the first transmitter and receiver (2) of the fixed stations (1) contain a specific identifier of the transmitter and at least one message,

the central control station (3) sends rail operation control orders,

each rail vehicle (4) and each fixed station (1) include processor (8) for determining the identifier and at least said message of each signal received,

the signals of the first and second transmitter and receiver (2, 6) are non-sinewave radio signals with a very large passband whereof a frequency spectrum ranges between 1 and 10 GHz.

2. (currently amended) The device according to claim 1, wherein each rail vehicle (4) comprising:

a first processing lane of the first and second transmitter and receiver (2, 6) determines the position and the direction of said vehicle in the transport zone; and

a second processing lane of the first and second transmitter and receiver (2, 6) determines an actual speed measurement of said vehicle, ~~eae~~ each of a first and second transmitter and receiver receives signals from the processor.

3. (previously presented) The device according to claim 1, wherein each rail vehicle (4) comprising:

a third processing lane of the first and second transmitter and receiver (2, 6) determines passive obstacles or other vehicles on lanes receiving signals from said processor.

4. (previously presented) The device according to claim 1, wherein a localisation in the transport zone, a speed and direction of each rail vehicle (4) are determined on the one hand, and a detection of obstacles is realised on the other hand, in real time and simultaneously.

5. (previously presented) The device according to claim 1, wherein said specific identifier is obtained by pseudo-random encoding.

6. (previously presented) The device according to claim 1, wherein the rail operation control orders transmitted by the central station (3) include navigation instructions of at least one rail vehicle (4).

7. (previously presented) The device according to claim 6, wherein said orders comprise a communication for said rail vehicle (4).

8. (currently amended) The device according to claim 1, wherein the central control station (3) includes a processing unit for centralising and processing ~~the~~ data sent by the fixed stations (1) and displaying said data on a screen in real time.

9. (currently amended) A ~~The~~ method for positioning and controlling rail vehicles including fixed stations (1) comprising first signal transmitter and receiver (2) and a central control station (3) to which are connected the fixed stations (1),

wherein,

each rail vehicle (4) comprises a second signal transmitter and receiver (6),

a specific identifier is determined for each of the first and second transmitter and receiver (2, 6), said signals being non-sinewave radio signals with a very large passband whereof a frequency spectrum ranges between 1 and 10 GHz containing said identifier and at least one message,

for each of the signals received by the fixed station (1) and by each rail vehicle (4) the identifier and at least said message of this signal are determined by processor (8),

rail operation control orders are sent by the central control station (3).

10. (previously presented) The method according to claim 9, wherein a transport zone controlled by the central station (3) and wherein the rail vehicles (4) are displaced, is divided into a grid of points defined by the repetition of a same elementary mesh of length D.

11. (previously presented) The method according to claim 10, wherein the length D of the elementary mesh is set typically to several hundred metres.

12. (previously presented) The method according to claim 11, wherein rail operation control orders are sent by the central control station (3) to each rail vehicle (4) so that a single vehicle (4) is included any time over the length D.

13. (previously presented) The method according to claim 11, wherein rail operation control orders are sent by the central control station (3) to at least two rail vehicles to conduct a rendezvous manoeuvre over the length D.

14. (previously presented) The method according to claim 10, wherein the length D of the elementary mesh is variable with time.

15. (previously presented) The method according to claim 14 wherein the length D of the elementary mesh is determined in real time from the signals transmitted by each rail vehicle (4), said length being at least equal to the safety distance D_{min} between each vehicle, the central station (3) sending rail operation control orders to each rail vehicle (4) for keeping said distance D between each vehicle.

16. (previously presented) The method according to claim 9 wherein passive obstacles on lanes are determined by the second transmitter and receiver (6) and for each rail vehicle (4) in motion.

17. (previously presented) The device according to claim 2, wherein each rail vehicle (4) comprising:

a fourth processing lane of the first and second transmitter and receiver (2, 6) determines passive obstacles or other vehicles on lanes receiving signals from said processor.